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| 09/991,203      | 11/20/2001  | William F. Courtney  | 22-0158             | 3401             |

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EXAMINER

DANIEL JR, WILLIE J

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2686

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/991,203

Applicant(s)

COURTNEY ET AL. *CS*

Examiner

Willie J. Daniel, Jr.

Art Unit

2686

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____.  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____.  | 6) <input type="checkbox"/> Other: ____.                                    |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on 20 November 2001 is in compliance with the provisions of 37 CFR 1.97 and is being considered by the examiner.

### ***Drawings***

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description:

- a. Fig. 5 "ref. 522" is not mentioned in the specification.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 8-10** are rejected under 35 U.S.C. 102(b) as being anticipated by Snell et al. (hereinafter Snell) (US 6,141,534).

Regarding Claim 8, Snell <sup>discloses</sup> a switching system for a communication platform (58) including a plurality of spokes and at least one hub, said switching system including: a multiplexer (18, 156, 164) allocating bandwidth among a plurality of cells (52) which reads on the claimed “spokes” and at least one hub (66) based on user demand (see col. 4, lines 17-29, 53-67; col. 10, line 48 col. 11, line 15; Figs. 1-3, 8).

Regarding Claim 9, Snell discloses wherein said cells (52) which read on the claimed “spokes” include spoke uplink bandwidth and said at least one hub (66) includes hub downlink bandwidth and the sum of said spoke uplink bandwidth differs from said hub downlink bandwidth (see col. 4, lines 17-29; col. 5, lines 1-33, 50-58; Figs. 2-3), where the user terminals (cells - 52) provide uplink transmissions through the satellite to the hub and the hub experiences downlink degradation in which additional resources are allocated to handle the demand. The allocation of additional resources indicate that the uplink bandwidth differs from the downlink bandwidth.

Regarding Claim 10, Snell discloses wherein the sum of said spoke uplink bandwidth is greater than said hub downlink bandwidth (see col. 4, lines 17-29; col. 5, lines 1-33, 50-58;

Figs. 2-3), where the user terminals (cells - 52) provide uplink transmissions through the satellite to the hub and the hub experiences downlink degradation in which additional resources are allocated to handle the demand. The allocation of additional resources indicate that the uplink bandwidth differs from the downlink bandwidth.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-5, 11-12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Snell et al. (hereinafter Snell) (US 6,141,534) in view of Adiwoso et al. (hereinafter Adiwoso) (US 5,963,862).

Regarding Claim 1, Snell discloses a satellite communication system (58) which reads on the claimed "communication platform" allocating bandwidth among spokes and hub (66) beams based on user demand (see col. 5, lines 16-33, 50-58) including:

a communication platform (58) (see col. 4, lines 17-29; col. 5, lines 15-20; Fig. 3);

a hub (66) beam, said hub beam allocated hub downlink bandwidth (see col. , lines col. 5, lines 50-58; Fig. 3); and

a plurality of cells (52) which reads on the claimed "spokes", each spoke allocated spoke uplink bandwidth and spoke downlink bandwidth, wherein the sum of said spoke uplink bandwidth allocated among said plurality of spokes differs from said hub downlink

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bandwidth allocated to said hub beam (see col. 4, lines 17-29; col. 5, lines 1-15, 50-58).

Snell fails to disclose having the feature of hub uplink bandwidth. However, the examiner maintains that the feature of hub uplink bandwidth was well known in the art, as taught by Adiwoso.

In the same field of endeavor, Adiwoso discloses the feature of access uplink which reads on the claimed "hub uplink bandwidth" (see col. 4, lines 26-43; col. 6, lines 40-42; Fig. 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Snell and Adiwoso to have the feature of hub uplink bandwidth, in order to have a hub with uplink bandwidth, as taught by Adiwoso.

Regarding Claim 2, the combination of Snell and Adiwoso discloses every limitation claimed, as applied above (see claim 1), in addition Snell further discloses wherein said sum of spoke uplink bandwidth is greater than said hub downlink bandwidth (see col. 5, lines 21-33, 50-58), where the user terminals (cells - 52) transmissions to the hub experiences downlink degradation in which additional resources are allocated to handle the demand.

Regarding Claim 3, Snell fails to disclose having the feature wherein at least one of said spokes is allocated differing amounts of spoke uplink bandwidth and spoke downlink bandwidth. However, the examiner maintains that the feature wherein at least one of said spokes is allocated differing amounts of spoke uplink bandwidth and spoke downlink bandwidth was well known in the art, as taught by Adiwoso.

Adiwoso further discloses the feature wherein at least one of said spokes is allocated differing amounts of spoke return link which reads on the claimed "uplink" bandwidth and

spoke forward link which reads on the claimed “downlink bandwidth” (see col. 5, line 54 - col. 6, line 3; Fig. 1), where the links are asymmetrical.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Snell and Adiwoso to have the feature wherein at least one of said spokes is allocated differing amounts of spoke uplink bandwidth and spoke downlink bandwidth, in order to have resources dynamically allocated based on the demand, as taught by Adiwoso.

Regarding Claim 4, Snell discloses wherein said satellite communication system (10, 58) which reads on the claimed “communication platform” dynamically re-allocates resources which reads on the claimed “bandwidth” (see col. 4, lines 17-29; col. 6, lines 50-62; Figs. 4A-5, 7), where the resources are reallocated among the links and cells. Snell fails to disclose having the feature re-allocates uplink bandwidth between said hub uplink bandwidth and said spoke uplink bandwidth. However, the examiner maintains that the feature re-allocates uplink bandwidth between said hub uplink bandwidth and said spoke uplink bandwidth was well known in the art, as taught by Adiwoso.

Adiwoso further discloses the feature re-allocates uplink bandwidth between said gateway (30) which reads on the claimed “hub” uplink bandwidth and said user which reads on the claimed “spoke” uplink bandwidth (see col. 4, lines 31-43; col. 5, line 54 - col. 6, line 3; Figs. 1, 10A, 11A, 12), where the bandwidth of the links between the user terminal and the gateway are adjusted according to the demands.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Snell and Adiwoso to have the feature

re-allocates uplink bandwidth between said hub uplink bandwidth and said spoke uplink bandwidth, in order to have resources dynamically allocated based on the demand, as taught by Adiwoso.

Regarding Claim 5, the combination of Snell and Adiwoso discloses every limitation claimed, as applied above (see claim 1), in addition Snell further discloses wherein said communication platform (10, 58) dynamically re-allocates said spoke downlink bandwidth and said hub (66) downlink bandwidth among said spokes and said hub beam at different diurnal which reads on the claimed "times of day" (see col. 5, lines 1-14; col. 8, lines 14-32; col. 11, lines 57-65; Fig. 1), where the satellite communication system dynamically reallocates the available resources between the cells which in which the user station and hub are located according to historic data.

Regarding Claim 11, Snell fails to disclose having the feature wherein said spokes include spoke downlink bandwidth and said at least one hub includes hub uplink bandwidth and the sum of said spoke downlink bandwidth differs from said hub uplink bandwidth. However, the examiner maintains that the feature wherein said spokes include spoke downlink bandwidth and said at least one hub includes hub uplink bandwidth and the sum of said spoke downlink bandwidth differs from said hub uplink bandwidth was well known in the art, as taught by Adiwoso.

Adiwoso further discloses the feature wherein said spokes include spoke downlink bandwidth and said at least one hub includes hub uplink bandwidth and the sum of said spoke downlink bandwidth differs from said hub uplink bandwidth (see col. 5, line 54 - col. 6, line



3; col. 6, lines 10-27,35-52; col. 4, lines 32-43; Fig. 1), where the system allocates asymmetrical links with unequal bandwidth based on the user demand.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Snell and Adiwoso to have the feature wherein said spokes include spoke downlink bandwidth and said at least one hub includes hub uplink bandwidth and the sum of said spoke downlink bandwidth differs from said hub uplink bandwidth, in order to have resources dynamically allocated based on the demand, as taught by Adiwoso.

Regarding Claim 12, Snell fails to disclose the feature wherein the sum of said spoke downlink bandwidth is less than said hub uplink bandwidth. However, the examiner maintains that the feature wherein the sum of said spoke downlink bandwidth is less than said hub uplink bandwidth was well known in the art, as taught by Adiwoso.

Adiwoso further discloses the feature wherein the sum of said spoke downlink bandwidth is less than said hub uplink bandwidth (see col. 5, line 54 - col. 6, line 3; col. 6, lines 10-27,35-52), where the bandwidth allocated between the spoke (user terminals) and the hub (gateways) can be unequal or asymmetrical according to the demand in which the hub uplink (access link) can be greater than the spoke downlink (user link).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Snell and Adiwoso to have the feature wherein the sum of said spoke downlink bandwidth is less than said hub uplink bandwidth, in order to have resources dynamically allocated based on the demand, as taught by Adiwoso.

**Claims 6-7** are rejected under 35 U.S.C. 103(a) as being unpatentable over Snell et al. (hereinafter Snell) by (US 6,141,534) in view of Adiwoso et al. (hereinafter Adiwoso) (US 5,963,862) as applied to claim 1 above, and further in view of Montpetit (US 6,366,761 B1).

Regarding Claim 6, the combination of Snell and Adiwoso discloses the communication platform (58) of claim 1 further including terrestrial stations (60-64) which reads on the claimed "user terminals" located within said spokes (cells), wherein said communication platform (58) includes a satellite (11) which reads on the claimed "processor", said processor reserves unused data packets as unused spoke and hub uplink bandwidth (see Snell - col. 6, lines 60-62; col. 4, lines 19-34; col. 5, lines 1-12, 19-34). The combination of Snell and Adiwoso fails to disclose the feature said processor receives data packets from said user terminals. However, the examiner maintains that the feature said processor receives data packets from said user terminals was well known in the art, as taught by Montpetit.

In the same field of endeavor, Montpetit discloses the feature said satellite (13f) which reads on the claimed "processor" receives data packets from said ground terminals (16) which reads on the claimed "user terminals" (see col. 4, lines 10-15, 37-40, 61-64; col. 6, lines 56-64; Figs. 2, 4-5, 9).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Snell, Adiwoso, and Montpetit to have the feature said processor receives data packets from said user terminals, in order to have packets transmitted to a satellite for processing and allocating of uplink bandwidth, as taught by Montpetit.

Regarding Claim 7, the combination of Snell, Adiwoso, and Montpetit discloses every limitation claimed, as applied above (see claim 6), in addition Snell further discloses the communication platform of claim 6 wherein said processor re-allocates said unused spoke and hub uplink bandwidth among said spokes (52) and said hub (66) (see col. 6, lines 60-62; col. 4, lines 19-34).

**Claims 13-14, 17-19** are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharon et al. (hereinafter Sharon) by (US 6,704,543) in view of Adiwoso et al. (hereinafter Adiwoso) (US 5,963,862).

Regarding Claim 13, Sharon discloses a method for dynamically reassigning communication resources of a SATCOM system (20) which reads on the claimed “communication system”, said communication system including a communication platform, at least one hub (706), and a plurality of spot beams (702) which reads on the claimed “spokes” (Fig. 7), said method including the steps of:

determining a service demand for said plurality of spokes (702) (see col. 7, lines 19-35, 55-60; Fig. 7). Sharon fails to disclose the feature allocating uplink bandwidth among said plurality of spokes and said at least one hub based on said service demands; and allocating downlink bandwidth among said plurality of spokes and said at least one hub based on said service demands. However, the examiner maintains that the feature allocating uplink bandwidth among said plurality of spokes and said at least one hub based on said service demands; and allocating downlink bandwidth among said plurality of spokes and

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said at least one hub based on said service demands was well known in the art, as taught by Adiwoso.

Adiwoso further discloses the feature allocating uplink bandwidth (user link) among said plurality of spokes (spot beam) and said at least one hub (30, gateway stations) based on said service demands (see col. 4, lines 31-43; col. 5, lines 24-26; col. 5, line 54 - col. 6, line 3; col. 6, lines 35-52; col. 7, lines 55-57); and

allocating downlink bandwidth among said plurality of spokes (spot beam) and said at least one hub (30) based on said service demands (see col. 4, lines 31-43; col. 5, lines 24-26; col. 5, line 54 - col. 6, line 3; col. 6, lines 35-52; col. 7, lines 55-57; Fig. 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Sharon and Adiwoso to have the feature allocating uplink bandwidth among said plurality of spokes and said at least one hub based on said service demands; and allocating downlink bandwidth among said plurality of spokes and said at least one hub based on said service demands, in order to have resources dynamically allocated based on the demand, as taught by Adiwoso.

Regarding Claim 14, Sharon discloses a method for dynamically reassigning communication resources of a SATCOM system (20) which reads on the claimed "communication system", said communication system including a communication platform, at least one hub (706), and a plurality of spot beams (702) which reads on the claimed "spokes" (Fig. 7), said method including the steps of:

determining a service demand for said plurality of spokes (702) (see col. 7, lines 19-35, 55-60; Fig. 7). Sharon fails to disclose the feature switching between a first uplink

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bandwidth allocation and a second uplink bandwidth allocation based on changes in said service demands; and switching between a first downlink bandwidth allocated and a second downlink bandwidth allocated based on changes in said service demands. However, the examiner maintains that the feature switching between a first uplink bandwidth allocation and a second uplink bandwidth allocation based on changes in said service demands; and switching between a first downlink bandwidth allocated and a second downlink bandwidth allocated based on changes in said service demands was well known in the art, as taught by Adiwoso.

Adiwoso further discloses the feature switching between a first uplink bandwidth allocation and a second uplink bandwidth allocation based on changes in said service demands (see col. 4, lines 31-43; col. 5, lines 24-26; col. 5, line 54 - col. 6, line 3; col. 6, lines 35-52; col. 7, lines 55-57), where the system is able to allocate bandwidth between the uplinks of the spot beam and gateway; and

switching between a first downlink bandwidth allocated and a second downlink bandwidth allocated based on changes in said service demands (see col. 4, lines 31-43; col. 5, lines 24-26; col. 5, line 54 - col. 6, line 3; col. 6, lines 35-52; col. 7, lines 55-57; Fig. 1), where the system is able to allocate bandwidth between the uplinks of the spot beam and gateway.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Sharon and Adiwoso to have the feature switching between a first uplink bandwidth allocation and a second uplink bandwidth allocation based on changes in said service demands; and switching between a first downlink

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bandwidth allocated and a second downlink bandwidth allocated based on changes in said service demands, in order to have resources dynamically allocated based on the demand, as taught by Adiwoso.

Regarding Claim 17, Sharon fails to disclose having the feature wherein said spokes include spoke downlink bandwidth and said at least one hub includes hub uplink bandwidth and the sum of said spoke downlink bandwidth differs from said hub uplink bandwidth. However, the examiner maintains that the feature wherein said spokes include spoke downlink bandwidth and said at least one hub includes hub uplink bandwidth and the sum of said spoke downlink bandwidth differs from said hub uplink bandwidth was well known in the art, as taught by Adiwoso.

Adiwoso further discloses the feature wherein said spokes include spoke downlink bandwidth and said at least one hub includes hub uplink bandwidth and the sum of said spoke downlink bandwidth differs from said hub uplink bandwidth (see col. 5, line 54 - col. 6, line 3; col. 6, lines 10-27,35-52; col. 4, lines 32-43; Fig. 1), where the system allocates asymmetrical links with unequal bandwidth based on the user demand.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Sharon and Adiwoso to have the feature wherein said spokes include spoke downlink bandwidth and said at least one hub includes hub uplink bandwidth and the sum of said spoke downlink bandwidth differs from said hub uplink bandwidth, in order to have resources dynamically allocated based on the demand, as taught by Adiwoso.

Regarding Claim 18, Sharon fails to disclose the feature wherein the sum of said spoke downlink bandwidth is less than said hub uplink bandwidth. However, the examiner maintains that the feature wherein the sum of said spoke downlink bandwidth is less than said hub uplink bandwidth was well known in the art, as taught by Adiwoso.

Adiwoso further discloses the feature wherein the sum of said spoke downlink bandwidth is less than said hub uplink bandwidth (see col. 5, line 54 - col. 6, line 3; col. 6, lines 10-27,35-52), where the bandwidth allocated between the spoke (user terminals) and the hub (gateways) can be unequal or asymmetrical according to the demand in which the hub uplink (access link) can be greater than the spoke downlink (user link).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Sharon and Adiwoso to have the feature wherein the sum of said spoke downlink bandwidth is less than said hub uplink bandwidth, in order to have resources dynamically allocated based on the demand, as taught by Adiwoso.

Regarding Claim 19, Sharon fails to disclose having the feature wherein at least one of said spokes is allocated differing amounts of spoke uplink bandwidth and spoke downlink bandwidth. However, the examiner maintains that the feature wherein at least one of said spokes is allocated differing amounts of spoke uplink bandwidth and spoke downlink bandwidth was well known in the art, as taught by Adiwoso.

Adiwoso further discloses the feature wherein at least one of said spokes is allocated differing amounts of spoke return link which reads on the claimed "uplink" bandwidth and spoke forward link which reads on the claimed "downlink bandwidth" (see col. 5, line 54 - col. 6, line 3; Fig. 1), where the links are asymmetrical.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Sharon and Adiwoso to have the feature wherein at least one of said spokes is allocated differing amounts of spoke uplink bandwidth and spoke downlink bandwidth, in order to have resources dynamically allocated based on the demand, as taught by Adiwoso.

**Claims 15-16** are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharon et al. (hereinafter Sharon) by (US 6,704,543) in view of Adiwoso et al. (hereinafter Adiwoso) (US 5,963,862) as applied to claim 13 above, and further in view of Snell et al. (hereinafter Snell) (US 6,141,534).

Regarding Claim 15, the combination of Sharon and Adiwoso fails to disclose the feature wherein said spokes include spoke uplink bandwidth and said at least one hub includes hub downlink bandwidth and the sum of said spoke uplink bandwidth differs from said hub downlink bandwidth. However, the examiner maintains that the feature wherein said spokes include spoke uplink bandwidth and said at least one hub includes hub downlink bandwidth and the sum of said spoke uplink bandwidth differs from said hub downlink bandwidth was well known in the art, as taught by Snell.

Snell further discloses the feature wherein said cells which read on the claimed “spokes” include spoke uplink bandwidth and said at least one hub (66) includes hub downlink bandwidth and the sum of said spoke uplink bandwidth differs from said hub downlink bandwidth (see col. 4, lines 17-29; col. 5, lines 1-33,50-58; Figs. 2-3), where the user terminals (cells - 52) provide uplink transmissions through the satellite to the hub and



the hub experiences downlink degradation in which additional resources are allocated to handle the demand. The allocation of additional resources indicate that the uplink bandwidth differs from the downlink bandwidth.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Sharon, Adiwozo, and Snell to have the feature wherein said spokes include spoke uplink bandwidth and said at least one hub includes hub downlink bandwidth and the sum of said spoke uplink bandwidth differs from said hub downlink bandwidth, in order to have a system utilizing dynamic resource allocation, as taught by Snell.

Regarding Claim 16, the combination of Sharon and Adiwozo fails to disclose the feature wherein the sum of said spoke uplink bandwidth is greater than said hub downlink bandwidth. However, the examiner maintains that the feature wherein the sum of said spoke uplink bandwidth is greater than said hub downlink bandwidth. was well known in the art, as taught by Snell.

Snell further discloses the feature wherein the sum of said spoke uplink bandwidth is greater than said hub downlink bandwidth (see col. 4, lines 17-29; col. 5, lines 1-33, 50-58; Figs. 2-3), where the user terminals (cells - 52) provide uplink transmissions through the satellite to the hub and the hub experiences downlink degradation in which additional resources are allocated to handle the demand. The allocation of additional resources indicate that the uplink bandwidth differs from the downlink bandwidth.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Sharon, Adiwozo, and Snell to have the

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feature wherein the sum of said spoke uplink bandwidth is greater than said hub downlink bandwidth, in order to have a system utilizing dynamic resource allocation, as taught by Snell.


***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Willie J. Daniel, Jr. whose telephone number is (703) 305-8636. The examiner can normally be reached on 7:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on (703) 305-4379. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WJD,JR  
19 August 2004

  
8/20/04  
LESTER G. KINCAID  
PRIMARY EXAMINER